

ABSTRACT

An optical element of a lithographic projection apparatus includes a Si/Mo multilayer structure, an outer capping layer and an interlayer positioned between the multilayer structure and the outer capping layer. The interlayer has a thickness of between 0.3 and 0.7 times the wavelength of the incident radiation. The interlayer may be C or Mo and has a thickness of between 6.0 and 9.0 nm. The interlayer may include an inner interlayer including Mo next to the multilayer structure and an outer interlayer including C next to the capping layer. The outer interlayer is at least 3.4 nm thick and the capping layer is Ru and at least 2.0 nm thick.